

Proposal for Behaviour

syntax for stating mathematical behaviour or 'law' (left side) in comparison to usual syntax (right side). this has no application yet: neither have i tried it in practice. here examples from R3 vectorspaces:

both are equal: in addition: any order elements AND in addition: any order elements:

$$= +u \equiv v + w = w + v$$

also

$$= *u$$

both are equal: in multiplication: any order elements in addition: any order elements:

$$= *u + u \equiv u * (v + w) = (v + w) * u = u * (w + v) = (w + v) * u$$

for **conventional** reasons:

- u is true for unordered (set of elements/sequence): $vw \wedge wv$
- o is true for ordered: $vw \wedge \neg wv$
- the line starts with \textcircled{B} followed by the behaviour being stated

Example in behavioural mathematics, english and scripted english:

$$\textcircled{B} = +\mathbb{N} + \mathbb{Q}^+$$

Addition behaves equal in natural and rational positive numbers.

Behaviour is equal: (in addition: any natural numbers)(in addition: any positive rational numbers)